

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A programmable gain attenuator comprising:
 - a termination resistor;
 - a first termination switch connecting one side of the termination resistor to a first output;
 - a second termination switch connecting another side of the termination resistor to a second output;
 - a first resistor ladder arranged between a first input and the first side of the termination resistor;
 - a first plurality of switches each connecting a corresponding tap from the first resistor ladder to the first output;
 - a second resistor ladder arranged between a second input and the second side of the termination resistor; and
 - a second plurality of switches each connecting a corresponding tap from the second resistor ladder to the second output,
- wherein a first switch of the first plurality of switches is turned on, followed by a second switch of the first plurality of switches turned off, followed by a third switch of the first plurality of switches turned on, wherein said first, second, and third switches of

said first plurality of switches are consecutively arranged along said first resistor ladder,
and

wherein a first switch of the second plurality of switches is turned on, followed by a second switch of the second plurality of switches turned off, followed by a third switch of the second plurality of switches turned on, wherein said first, second, and third switches of said second plurality of switches are consecutively arranged along said second resistor ladder, wherein the second switch is disposed in-between the first switch and the third switch.

2. (Original) The programmable gain attenuator of claim 1, wherein the first switch of the first plurality of switches includes a plurality of switches, and wherein the first switch of the second plurality of switches includes a plurality of switches.
3. (Original) The programmable gain attenuator of claim 1, wherein the second switch of the first plurality of switches includes a plurality of switches, and wherein the second switch of the second plurality of switches includes a plurality of switches.
4. (Original) The programmable gain attenuator of claim 1, wherein the third switch of the first plurality of switches includes a plurality of switches, and wherein the third switch of the second plurality of switches includes a plurality of switches.
5. (Original) The programmable gain attenuator of claim 1, further including a plurality of resistors connected between the corresponding taps of the first and second resistor ladders.
6. (Currently Amended) A single-ended programmable gain attenuator comprising:
 - a termination resistor;
 - a termination switch connecting one side of the termination resistor to an output;

a resistor ladder arranged between an input and the one side of the termination resistor; and

a plurality of switches each connecting a corresponding tap from the resistor ladder to the output,

wherein a first switch of the first plurality of switches is turned on, ~~followed by~~ a second switch of the first plurality of switches turned off, ~~followed by~~ a third switch of the first plurality of switches turned on;

wherein the first switch, the second switch, and the third switch are consecutively arranged, wherein the second switch is disposed in-between the first switch and the third switch.

7. (Original) The single-ended programmable gain attenuator of claim 6, wherein the first switch of the plurality of switches includes a plurality of switches.

8. (Original) The single-ended programmable gain attenuator of claim 6, wherein the second switch of the plurality of switches includes a plurality of switches.

9. (Original) The single-ended programmable gain attenuator of claim 6, wherein the third switch of the plurality of switches includes a plurality of switches.

10. (Previously Amended) A single-ended programmable gain attenuator comprising:

a resistive ladder;

a plurality of switches corresponding to the resistive ladder and each connected to corresponding taps of the resistive ladders and to an output;

a termination resistor,

wherein non-consecutive switches in the plurality of switches are turned on to interpolate a desired voltage at the output, wherein at least one switch between said non-consecutive switches is turned off.

11. (Previously Amended) A programmable gain attenuator comprising:

two resistive ladders;

a plurality of switches corresponding to each resistive ladder and each connected to corresponding taps of the two resistive ladders and to an output;

a termination resistor,

wherein non-consecutive switches in each of the plurality of switches are turned on to interpolate a desired voltage at the output, wherein at least one switch between said non-consecutive switches is turned off.

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)